

Notes

Kazumi FUJIKAWA^a and Hiroshige KOYAMA^b: *Ligularia japonica* Less. (Asteraceae), a New Record for Myanmar

ハンカイソウはミャンマーにも産する (藤川和美^a, 小山博滋^b)

During research on the Asteraceae for the Flora of Myanmar, we found several specimens of *Ligularia* species collected from Natma Taung (Mt. Victoria) National Park, Chin State, west-central Myanmar. Six species of *Ligularia* (Asteraceae) have hitherto been recorded for Myanmar (Kress et al. 2003), namely, *L. chimiliensis* Chang, *L. dentata* (A. Gray) H. Hara, *L. hookeri* (C. B. Clarke) Hand.-Mazz., *L. phyllocolea* Hand.-Mazz., *L. racemosa* DC., and *L. schizopetala* (W. W. Sm.) Hand.-Mazz. The *Ligularia* specimens collected from Natma Taung National Park resemble *L. dentata* in having large capitula with corymbose and radical leaves as broad as length. However, they are characterized by having palmately divided leaves, while those of *L. dentata* are reniform-orbicular with regular mucronate teeth.

Following a thorough search of the literature pertinent to the flora of Myanmar (Hooker 1881, Chater 1982, Wu 1989, Koyama 1995, Mathur 1995, Grierson and Springate 2001, Kress et al. 2003) and monographic works of *Ligularia* (Kitamura 1942, Hu 1967, Koyama 1968), we conclude that the specimens are *Ligularia japonica* Less. The species is also known to occur in Meghalaya, north-eastern India, from where it was described under the name *Senecio macranthus* C. B. Clarke (Clarke 1876, Hooker 1881, Mathur 1995).

Distribution of *Ligularia japonica* has previously been reported from central to southern Japan based on herbarium materials (see Koyama 1968), North Korea and Taiwan (Koyama 1995), Hubei, Hunan, Jiangxi, Zhejiang, Anhui, Guangxi, Guangdong and Fujian in China (Wu 1989) in moist places

and grassy slopes in montane areas (Koyama 1968) and Mt. Khasia in India (Hooker 1881). This discovery therefore represents a new record for Myanmar. The species is found in meadows and at the edge of mixed *Quercus griffithii* Hook. f. & Thoms. ex Miq. and *Pinus kesiya* Royle ex Gordon forest at elevations of 750 to 1750 m a.s.l. On the other hand, *Ligularia dentata* was reported from Yunnan, Sichuan, Guizhou, Gansu, Shaanxi, Shanxi, Hubei, Guangxi, Hunan, Jiangxi, Anhui and Henan in China (Wu 1989) and from central Honshu and Shikoku, but on coastal slopes in northern Honshu based on herbarium materials in Japan (see Koyama 1968) and Myanmar (Kress et al. 2003) on rather wet places under light forest, and by streams in montane areas (Koyama 1968).

Here we provide a description of the species based on material from Myanmar. All voucher specimens are deposited at MBK (Kochi Prefectural Makino Botanical Garden) and at the office of Natma Taung National Park, Nature and Wildlife Conservation Division, Forest Department, Kanpetlet Township, Chin State, Myanmar.

***Ligularia japonica* Less.** [Fig. 1]

Arnica japonica Thunb., Fl. Jap., t. 49 (1802), non L. f. (1781).

Senecio macranthus C. B. Clarke, Comp. Ind., 205 (1876)—Hook. f., Fl. Brit. Ind. 3: 349 (1881).

Stout, perennial herb. Stems erect, ca. 1 m tall, glabrous. Cauline leaves chartaceous, blade cordate-orbicular, ca. 30 cm long and wide, palmately cleft to parted, segment lobed or incised, abaxial surface scattered pubescent, adaxial surface glabrous, petioles

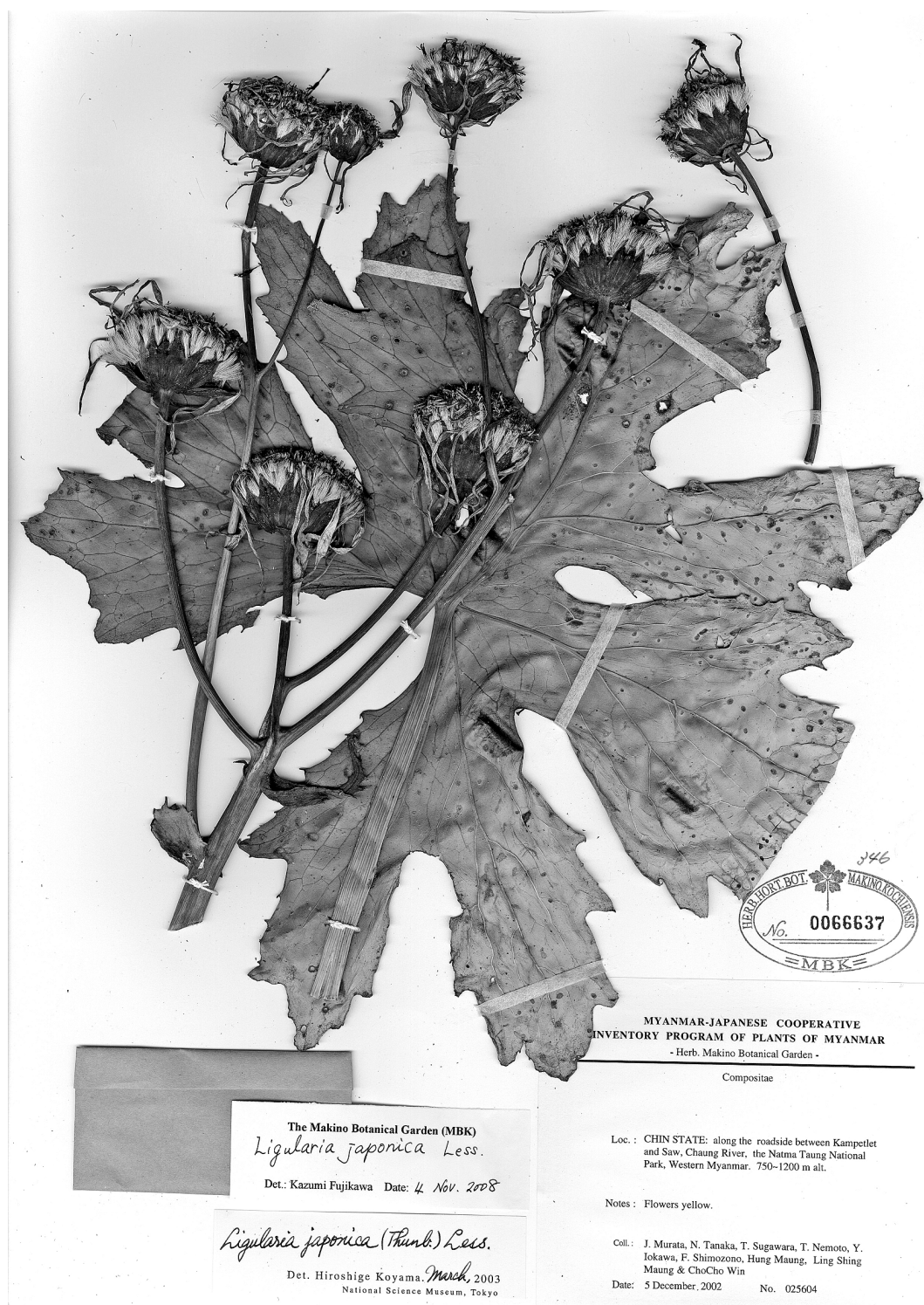


Fig. 1. *Ligularia japonica* Less. (Asteraceae) collected from along the road between Kanpetlet and Saw, Natma Taung National Park, Myanmar.

broadly sheathing. Heads radiate, ca. 13 cm in diameter, 2–8 in corymbs; peduncle 6–20 cm long, glabrous, bracteolate; involucre campanulate, 1.5–2.5 cm high, ca 3.5 cm wide at flowering; phyllaries 12–17 per head, in 1 series, elliptic, coriaceous, margin herbaceous with ciliate hairs at apical part, apex acuminate, base connate. Flowers and fruits November to March; marginal flowers ca. 12, in 1 series, female, ligule lanceolate or narrowly oblong 5–6 cm long, 8–12 mm wide, tube 12–14.5 mm long; disc flowers bisexual, corolla 12–16 mm long, apex 5-lobed, lobe 3–4.5 mm long, basal tube 6.5–10 mm long. Achenes cylindric, terete, 12–15 mm long, glabrous. Pappus of capillary bristles rusty brown, 12–15 mm long.

Distribution: Japan, Korea, China, Myanmar and India.

Ecology: In meadows and at the edge of mixed pine and oak forest.

Specimens examined: Chin State: along the road between Kanpetlet and Ook Pho Village, Natma Taung National Park, 2 December 2002, J. Murata & al. 025413; along the road between Kanpetlet and Saw, Chaung River, Natma Taung National Park, 750–1200 m alt., 5 December 2002, J. Murata & al. 025604; along the road between Mindat and Kanpetlet, Natma Taung National Park, 1750 m alt., 22 March 2006, K. Fujikawa & A. Nomachi 035870.

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ミャンマー中西部チン州ナマタン国立公園より採集されたオタカラコウ属の標本を調べたところ、葉が深く掌状に切れ込み、散房状花序と大型の腎形葉を持つことから、ハンカイソウ *Ligularia japonica* Less. であることが明らかとなった。本種は草原やカシヤマツ *Pinus kesiya* Royle ex Gordon や *Quercus griffithii* Hook. f. & Thoms. ex Miq. から成る疎林の縁、海拔750–1700 m の地域に生育する。文献調査と標本調査からこれまでにミャンマーからの記録がないので、新産であると判断した。

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